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ABSTRACT OF THE DISCLOSURE

In the WDM systems, the OSNR and the signal loss among the optical signals are substantially minimized at the receiving terminal to combat the SRS effects. An equal amount of the signal loss is expected for every span in the transmission path so that the optical amplifier gain tilt is not affected among a number of wavelength frequencies in the optical signal. This is accomplished by controlling the amplification process according to a feedback from the monitoring units for monitoring the optical signal.